

## Claims:

1. A process for preparing aldehydes and alcohols by rhodium-catalyzed hydroformylation of olefins having 6-20 carbon atoms with subsequent separation by distillation of the output from the hydroformylation reaction into the hydroformylation products and a rhodium-containing solution and recirculation of this solution to the hydroformylation reaction, wherein the rhodium concentration of the recirculated rhodium-containing solution is 20-150 ppm by mass.
2. The process as claimed in claim 1, wherein the rhodium-containing solution comprises the reaction products of the hydroformylation reaction as solvent and the rhodium concentration is set by means of the separation by distillation of the output from the hydroformylation reaction.
3. The process as claimed in claim 1, wherein the rhodium-containing solution comprises an inert solvent as solvent and the rhodium concentration is set by means of the separation by distillation of the output from the hydroformylation reaction.
4. The process as claimed in any of claims 1 to 3, wherein the rhodium-containing solution comprises the high boilers, aldehydes and alcohols formed in the hydroformylation reaction as solvent and the rhodium concentration is set by means of the proportion of aldehydes and alcohols via the separation by distillation of the output from the hydroformylation reaction.

5. The process as claimed in any of claims 1 to 3,  
wherein  
the rhodium-containing solution comprises the  
aldehydes and alcohols formed in the  
hydroformylation reaction and an inert solvent as  
solvents and the rhodium concentration is set by  
means of the proportion of aldehydes and alcohols  
via the separation by distillation of the output  
from the hydroformylation reaction.
6. The process as claimed in any of claims 1 to 5,  
wherein  
Texanol, dioctyl phthalate or diisononyl phthalate  
is used as inert solvent.
7. The process as claimed in any of claims 1 to 6,  
wherein  
the rhodium catalysts comprise phosphite ligands.
8. The process as claimed in claim 7,  
wherein  
the rhodium catalysts comprise tris(2,4-di-t-  
butylphenyl) phosphite as ligand.